

PHOSPHORUS-COPPER BASE BRAZING ALLOY

Abstract of the Disclosure

A solid phos-copper base or silver-phos-copper base brazing alloy component for forming a brazed joint with a raised shoulder, little to no black oxide, and improved corrosion resistance. The brazing alloys of the present invention are visually distinguishable from copper and copper alloy parts. The solid brazing components of the present invention may be used in forming brazed joints at low brazing temperatures and result in a joint that is strong, ductile, smooth and corrosion resistant. The solid brazing components are provided in the form of wire, strip, foil or preform, and thus are advantageously used in a wide variety of brazing applications including copper tubing. The brazing components of the present invention are made of an alloy having a liquidus temperature above 840°F and consist essentially of about 4-9% phosphorus, about 0.1-10% tin, up to about 4% antimony, about 0.1-15% nickel, up to about 3% silicon, up to about 18% silver, up to about 3% manganese, with the balance being copper. Exemplary embodiments include about 6-15% silver and/or 5-8% nickel.